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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/725,885 | 12/02/2003 | Dale Eschenburg | 60130-1957 | 3377 |

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EXAMINER

KIM, CHONG HWA

ART UNIT PAPER NUMBER

2167

DATE MAILED: 12/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/725,885

Applicant(s)

ESCHENBURG, DALE

Examiner

Chong H. Kim

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) 12-21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Invention I in the reply filed on Oct 30, 2006 is acknowledged.

2. Claims 12-21 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim.

Election was made **without** traverse in the reply filed on Oct 30, 2006.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-3, 6, and 9-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Ries, U.S. Patent 4,468,981.

Ries shows, in Figs. 1-6, an axle assembly comprising: an axle housing 11; a pump housing 112, 114, 115 attachable to cover an opening within the axle housing; a pump 130, 134 mounted within the pump housing; an input shaft 35 supported by the pump housing and driving the pump; wherein the pump supplies lubricant from a sump 12 within the axle housing to a

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driveline component 161 supported within the axle housing; an annular passage 139 defined within the pump housing surrounding the input shaft; comprising a bearing 38, 39 supporting rotation of the input shaft mounted within the pump housing; wherein the pump comprises a rotor pump; wherein the rotor pump comprises a reversing ring 140 for directing oil flow in a first direction regardless of input shaft rotational direction; and wherein the pump housing comprises a bearing cage 115 supporting rotation of the input shaft.

5. Claims 1-6 and 9-11 are rejected under 35 U.S.C. 102(e) as being anticipated by Aikawa et al., U.S. Patent 6,770,005 B2.

Aikawa et al. shows, in Figs. 1 and 2, an axle assembly comprising: an axle housing 11; a pump housing 13 attachable to cover an opening within the axle housing; a pump 93 mounted within the pump housing; an input shaft 39 supported by the pump housing and driving the pump; wherein the pump supplies lubricant from a sump 9 within the axle housing to a driveline components supported within the axle housing; an annular passage defined within the pump housing surrounding the input shaft (in the left most housing part that surrounds the shaft 111); wherein the input shaft comprises a lubricant passageway receiving lubricant from the pump and wherein the lubricant passageway comprises at least one outlet passage for distributing lubricant (as shown in Fig. 1 and disclosed in col. 13, lines 38-44); comprising a bearing 55 supporting rotation of the input shaft mounted within the pump housing; wherein the pump comprises a rotor pump (trochoid pump); wherein the rotor pump comprises a reversing ring for directing oil flow in a first direction regardless of input shaft rotational direction (inherent in trochoid pumps);

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and wherein the pump housing comprises a bearing cage (the races for bearing 55) supporting rotation of the input shaft.

6. Claims 1 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Jespersen, U.S. Patent 3,688,858.

Jespersen shows, in Figs. 4, an axle assembly comprising: an axle housing 111; a pump housing 133 attachable to cover an opening within the axle housing; a pump 135 mounted within the pump housing; an input shaft 187 supported by the pump housing and driving the pump; wherein the pump housing comprises a filter housing 213 for attachment of lubricant filter.

7. Claims 1-3, 6-9, and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Shiba et al., U.S. Patent 5,311,740.

Shiba et al. shows, in Figs. 1-4, an axle assembly comprising: an axle housing 1; a pump housing (the other half of the housing portion 1) attachable to cover an opening within the axle housing; a pump P2 mounted within the pump housing; an input shaft 3 supported by the pump housing and driving the pump; wherein the pump supplies lubricant from a sump within the axle housing to a driveline components supported within the axle housing; an annular passage 2a, 2b defined within the pump housing surrounding the input shaft; comprising a bearing (the portion that surrounds the shaft 3 in the center section 2 or the bearing within the race as shown in Fig. 3 at the top most portion of the housing) supporting rotation of the input shaft mounted within the pump housing; wherein the pump housing comprises a filter housing 25 for attachment of a lubricant filter; wherein the pump housing comprises a relief valve 32 for controlling lubricant

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pressure emitted from the pump; wherein the pump comprises a rotor pump; and wherein the pump housing comprises a bearing cage (the races for the bearing) supporting rotation of the input shaft.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Axle assembly with pump having valves.

Sullivan et al., U.S. Patent 4,452,100


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chong H. Kim whose telephone number is (571) 272-7108. The examiner can normally be reached on Monday - Friday; 9:00 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cottingham can be reached on (571) 272-7079. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

chk
December 4, 2006


CHONG H. KIM
PRIMARY EXAMINER